REMARKS

§ 101 rejection

The examiner's rejection of all claims but claim 19 is for failure to specifically recite in the claims a useful result. Accordingly, the applicants further amend independent claims 1 and 6 in their preambles to state that the geologic model is "of a rock property useful in petroleum exploration and production." Support is claim 19 and the first sentence of paragraph 3 of the application. With these amendments, the applicants believe that the claims comport with the Office's latest thinking on patentable subject matter.

§ 112 rejections

How the model is updated is made more explicit with amendments to steps (c) and (d) of claim 1, and similar amendments to claim 6. The phrase "resulting in a simulated value of the rock property at each node is added at the end of step (c), with support from the last sentence of paragraph 35. The phrase "with data values resulting from said spectral simulations" in step (d) is replaced by the more explicit words "by substituting the simulated rock-property values for the values in the corresponding nodes in the tentative model." Support comes from the first sentence of paragraph 37. These amendments are believed to cure the § 112 problems.

Drawings

A formal replacement sheet for sheet 5 of the drawings containing an amended version of Fig 6A is included herein. The shaded area represents a fan-shaped deep water reservoir, and the changes in shading indicate the varying thickness of the reservoir at each location. Figure 6A has been redrawn with the shading lightened overall to improve visibility of features **601** and **602**, which is believed to be the reason for the examiner's objection. Also, features **601** and **602** are now rendered in white for excellent contrast. Furthermore, the reference numbers in the original drawing did not agree with the description in paragraph 60, and that too has been corrected by changing the numbers in the drawing. (The reference numbers **500**, **501** and **502** are changed to **600**, **601** and **602**.)